

ABSTRACT OF THE DISCLOSURE

A single substrate hydrogen and microwave absorber (20) attenuates spurious microwave signals in a metal Integrated Microwave Assembly (10, 10') and reduces hydrogen poisoning of hydrogen sensitive components implemented in the Integrated Microwave Assembly (10, 10'). The single substrate hydrogen and microwave absorber (20) includes a titanium substrate (30) with channels (32) spaced apart from one another by a predetermined distance. A layer of microwave absorbing material (34) is formed on portions (35) of the titanium substrate (30) between the channels (32), and a layer of hydrogen getting material (36) is formed in the channels (32) of the titanium substrate (30).